

SPECIFICATION

Please amend the specification with the following replacement paragraphs numbered according to the published application:

[0064] However, considering the case of 16 QAM, an ~~and~~ idealised received codeword constellation diagram consisting of all possible 16 symbols (S1-S16) in 16 QAM is shown ~~show~~ in FIG. 1a. In the case of a hard decision making system where symbol S7 was transmitted, systems noise, for example Johnson noise or shot noise within the receiver, can cause the received signal to deviate from the constellation ordinate corresponding to symbol S7 towards, for example, the ordinate corresponding to symbol S3. When such deviation is small a correct hard decision, that the transmitted symbol is symbol S7, is made. However, when such deviation is sufficiently large an incorrect hard decision is made that the transmitted symbol is symbol S3 rather than symbol S7. This is because there is a higher probability that the transmitted symbol is symbol S3 rather than symbol S7 in this case as shown by the received symbol lying closer to symbol S3 than symbol S7 in the constellation diagrams. Such incorrect determinations of a symbol clearly leads to an error in the bit streams output from the receive unit.

[0071] The reception device 204 comprises ~~[[a]]~~ four ~~[[of]]~~ receive antennas 214 a-d, channel state information (CSI) estimators 216 a-d ~~246a-d~~, a combined joint detector-decoder 218 and a hard decision making device 220, a slicer.